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List of Apparatus

*For the Experiments in the Elementary Science of the Public School
Fifth Form and Continuation Class Courses, and of the Lower
School of the High School.*

	Probable Cost.
1 Metric Scale, one foot long. The ordinary School rulers graduated in inches and centimeters will answer	\$0 02
1 Meter Stick	0 50
1 Caliper, Simple form	0 50
1 Dissected Litre Block	2 00
1 Pinch-Cock	0 15
1 Burette, Mohr's, 50 C.C. graduated in tenths	2 00
1 Measuring Cylinder, 100 C.C. graduated	0 80
3 Beakers, different sizes	0 55
1 Air Pump and Receiver	10 00
1 Elastic Rubber Balloon. A toy balloon answers well	0 10
1 Pendulum Bob	0 25
1 Physical Balance, with set of Metric Weights	8 50
1 Spirit Lamp or Bunsen Burner	0 40
1 Spring Balance	0 50
1 Glass Battery Jar, 9 in. deep, 8 in. diam.	0 50
1 Mortar and Pestle	0 35
2 Thistle Tubes	Each 15 0 30
1 Transmission of Pressure Apparatus	0 75
1 Archimides Principle	1 75
1 Globe for Weighing Air	3 00
1 Barometer Tube, heavy glass	0 50
1 Mariotte's Law Tube	1 50
1 Lift Pump, Glass Model	1 25
1 Force Pump, Glass Model	1 25
1 Hydraulic Press, Glass Model	2 00
1 Filter Funnel	0 10
1 Retort Stand (two rings)	0 50
3 Small Florence Flasks with perforated rubber corks to fit	0 45
1 Florence Flask with wide mouth	0 25
1 Rubber Cork with two holes to fit Florence Flask with large mouth	0 15
1 Hydrometer Jar	0 45
1 Porous Cup	0 70
1 Specific Gravity Bottle	0 75
1 Weighted Wooden Prism, 1 square centimeter in section	0 25
1 Tuning Fork, simple form	0 20
1 Brass Rod for showing the production of Sound by longitudinal vibrations of rod	0 30
1 Whistle	0 10
1 Coil Spring, about 1 in. in diameter and 2 feet long	0 25
1 Bell in Vacuo	1 50

1 Glass Tube about 2 cm. in diameter and 30 cm. long.....	\$0 15
1 Glass Tube, about 3 cm. in diameter and 50 cm. long.....	0 30
1 Whirling Machine.....	3 50
Cardboard Discs for Whirling Machine to show reflection of sound	0 50
1 Toothed wheel with ring of holes to attach to whirling machine to illustrate pitch of sound	2 00
1 Spool Piano Wire.....	0 10
1 Toy Trumpet.....	0 10
1 Ball and Ring.....	1 00
1 Compound Bar	1 00
1 Thermometer, graduated in both Centigrade and Fahrenheit De- grees.....	1 00
1 Differential Thermometer.....	2 50
1 Calorimeter.....	2 00
1 Conductometer.....	1 50
1 Cardboard Screen with frame.....	0 50
1 Reflection of Light Apparatus to be fitted also for reflection of sound	3 00
1 Plane Mirror (small).....	0 25
1 Convex Lens (Reading Glass will answer).....	0 50
1 Triangular Glass Prism.....	0 50
Pieces of Red, Green and Blue Glass.....	0 10
Lodestone, (small piece).....	0 50
2 Bar Magnets.....	0 50
1 Horse-shoe Magnet.....	0 25
1 Compass.....	0 25
1 Bar Soft Iron, Round, 6 in. long.....	0 20
Sheet Zinc and Sheet Copper (Pair Elements).....	0 15
2 Dry Cells.....each	35 0 50
1 Spool Double-Covered Magnet Wire, No. 20, to be used for making Electro-Magnets, etc.....	0 30
1 Small Incandescent Lamp (3 volts).....	0 25
1 Pneumatic Trough.....	0 40
4 Glass Bottles, (Pickle bottles will answer).....	0 10
4 Glass Slips, 2 inches square to cover mouth of bottles.....	0 05
3 Soup Plates.....	0 20
3 Hard Glass Test Tubes.....	0 30
1 Test Tube Rack.....	0 25
4 Reagent Bottles 4 oz.....	0 50
$\frac{1}{2}$ Doz. Test Tubes, 5 in. \times $\frac{3}{4}$ in.....per doz.....	0 25
1 Doz. " " 4 in. \times $\frac{1}{2}$ in....." ".....	0 15
2 U-Tubes, 6 in. \times $\frac{3}{4}$ in.....each.....	0 10
1 lb. Glass Tubing, (soft) $\frac{1}{8}$ in. to $\frac{1}{4}$ in.....	0 60
1 Retort, stoppered, 4 oz.....	0 25
1 Lamp Chimney, (large).....	0 10
1 Electrolytic Apparatus.....	1 25
2 yds. Rubber Tubing $\frac{3}{16}$ in. inside, red.....per ft.....	0 10
Pieces of Mica.....	0 10
1 Package of Picture Wire.....	0 10
2 Files, one round, one triangular.....each.....	0 15
2 Doz. Corks, assorted.....	0 10
1 Package Filtering Paper, Circles, 6 in.....	0 25
Candles	0 10
$\frac{1}{2}$ Doz. Sheets Litmus Paper.....	0 30
1 Sq. ft. Sheet Rubber.....per sq. ft.....	0 25
Wire Gauze.....	0 15

Sealing Wax	large stick....	\$0 25
1 Small Vise for clamping wires		0 40

CHEMICALS.

Zinc, granulated, 1 lb.....	0 20
Copper clippings (sheet or wire) 1 lb.....	0 50
Iron Filings, 1 lb.....	0 05
Charcoal, (may be had from plumber).....	0 25
Coal, (pieces of hard and soft)	
Mercury, 2 lbs.....	2 00
Sodium, 1 oz.....	0 25
Potassium, 2 drams.....	dram.... 0 25
Oxide of Mercury, red, 1 oz.....	0 25
Oxide of Copper, 1 oz.....	0 15
Manganese, dioxide, $\frac{1}{2}$ lb.....	0 10
Calcium oxide, (Lime, lumps).....	
Sodium, hydroxide, $\frac{1}{4}$ lb.....	0 25
Potassium chlorate, 1 lb.....	0 25
Potassium nitrate, 4 oz.....	0 10
Potassium permanganate, 2 oz.....	0 15
Calcium chloride (lumps).....	
Ammonia solution, 8 oz.....	0 10
Ammonium nitrate, 4 oz.....	0 10
Ammonium chloride, 6 oz.....	0 10
Calcium carbonate, lumps of limestone, calcite, chalk, animal shells.....	
Carbon, specimens of coal, charcoal, graphite, lampblack.....	
Sulphuric acid, 1 lb.....	0 05
Nitric acid, 1 lb	0 05
Hydrochloric acid, 8 oz.....	0 05
Yellow Phosphorus, 1 oz.....	0 05

BOTANY AND ZOOLOGY.

For the work in Botany and Zoology it is desirable that each pupil should have a pocket magnifier (30-50 cents). A compound microscope (\$11.00) should also form part of the school equipment for this work. These, together with a dozen glass slips and cover glasses and a couple of needles mounted in wooden handles will be found to be all that is necessary for the course. Breeding cages for observing the development of insects may be made from waste crayon boxes or soap boxes by covering one side or end with mosquito netting or a pane of glass.

GENERAL.

A small cupboard should be provided for storing apparatus and chemicals, and a simple laboratory table for carrying out experiments. The table should be kept for this use alone where there is no laboratory.

